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09/850,367	05/08/2001	Jin-Ho Ha	6192.0233.AA	2543

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EXAMINER

NGUYEN, HOAN C

ART UNIT PAPER NUMBER

2871

DATE MAILED: 07/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/850,367

Applicant(s)

HA ET AL.

Examiner

HOAN C. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 May 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.  
4a) Of the above claim(s) 1-33 and 43-49 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 34-41 and 50-52 is/are rejected.  
7) ☐ Claim(s) 42 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☒ Other: Foreign patent document

## DETAILED ACTION

### *Response to Amendment*

Applicant's arguments with respect to claims 34, 37, 41-42, 50 and 52 based on the Response filed on 5/11/2006 have been considered but are moot in view of the new ground(s) of rejection. Therefore, this is Final action.

This application contains claims 1-33 and 43-49 drawn to an invention nonelected with traverse on 24 June 2004. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

### *Drawings*

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following features:

- “a printed circuit board 400/500 configured to control the display unit disposed outside the mold frame 600” (claims 34, 50 and 52);
- “the opening exposed a center portion of the bottom surface of the bottom chassis 600”. Figure 3 did not disclose this feature of claim 36

must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended

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replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 34, 50 and 52 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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The amended claims 34, 50 and 52 cite "a printed circuit board 400/500 configured to control the display unit disposed **outside** the mold frame 600 and directly mounted on a bottom surface of the bottom chassis 300". However, the specification discloses (Figs. 3-4) "a printed circuit board 400/500 configured to control the display unit disposed **inside** the mold frame 600 and directly mounted on a bottom surface of the bottom chassis 300".

Therefore, the cited feature of claims 34, 50 and 52 considers as New Subject Matter.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 34, 38-40, 50 and 51 are rejected under 35 U.S.C. 102(b) as being anticipated by **Yamamoto (JP404359227)**.

**Yamamoto** discloses a liquid crystal display device comprising:

Claim 34 and 52:

- displaying unit 11 for displaying an image;
- a bottom chassis 25 receiving the displaying unit;
- a mold frame 18 receive the bottom chassis and having an opening 17 exposing a bottom surface of the bottom chassis through window;

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- a printed circuit board 15 configured to control the display unit disposed outside the mold frame 18 and directly mounted on a bottom surface of the bottom chassis 25;

wherein

Claims 38-40:

- a fixing unit (walls of rear case 37) for fixing the printed circuit board 15 to a bottom surface of the bottom chassis 25 according to claim 38; therefore, the printed circuit board is arranged between the bottom chassis and the fixing unit according to claim 39 and the printed circuit board is overlapped at one end thereof with the fixing unit according to claim 40.

Claim 50:

- a front case 36;
- a rear case 37;
- a liquid crystal display device disposed between the front case and rear case and comprising:
  - displaying unit 11 for displaying an image;
  - a bottom chassis receiving the displaying unit;
  - a mold frame 18 receive the bottom chassis and having an opening 17 exposing a bottom surface of the bottom chassis through window;
  - a printed circuit board 15 configured to control the unit and disposed outside the mold frame directly mounted on a bottom surface of the bottom chassis 25;

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 34 and 52 are rejected under 35 U.S.C. 102(e) as being anticipated by

**Takeishi (US6853409B2).**

**Takeishi** discloses a liquid crystal display device comprising:

Claim 34 and 52:

- displaying unit 11 for displaying an image;
- a bottom chassis receiving the displaying unit;
- a mold frame 24 receive the bottom chassis and having an opening exposing a bottom surface of the bottom chassis through window;
- a printed circuit board 13 configured to control the display unit disposed outside the mold frame 24 and directly mounted on a bottom surface of the bottom chassis;

Claim 35:

- a liquid crystal display device comprising a shield case (light reflecting sheet 29) covering the PCB.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 35-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamamoto (JP404359227)** as applied to claims 34, 38-40, 50 and 51 and in view of Satoh (US6016083A).

**Yamamoto** also discloses the opening exposed a center portion of the bottom surface of the bottom chassis according to claim 36. Since **Yamamoto** disclose the wiring part 16 of PCB 15 connected to the tape carrier 12 of the driver IC 13, therefore, power supply and a signal converter are inherently included to supply power and to convert signal provided to the display unit according to claim 37.

However, **Yamamoto** fails to disclose a liquid crystal display device comprising a shield case covering the PCB.

Satoh teaches (Fig. 6) a liquid crystal display device comprising a shield case covering the PCB.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display device as **Yamamoto** disclosed with a shield case covering the PCB for suppressing noise generated by the electronic circuit is by-passed, and electromagnetic radiation of noise from a cable connected to the printed-circuit board via a connector, as taught by Satoh (ABSTRACT).



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4. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamamoto (JP404359227)** as applied to claims 34, 38-40, 50 and 51 and in view of **Kim (US6411352B1)**.

**Yamamoto** fails to disclose a liquid crystal display device comprising the fixing unit including a bracket having a first end connected to the PCB and a second end connected to the bottom surface of the bottom chassis.

**Kim** teaches (Figs. 5-6) a liquid crystal display device comprising the fixing unit including a bracket 24 having a first end connected to the PCB 22 and a second end connected to the bottom surface of the bottom chassis (frame 20).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a liquid crystal display device as **Yamamoto** disclosed with the fixing unit including a bracket having a first end connected to the PCB and a second end connected to the bottom surface of the bottom chassis for securing the printed circuit board to the chassis or frame as taught by Kim (abstract).

#### ***Allowable Subject Matter***

Claim 42 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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The following is a statement of reasons for the indication of allowable subject matter: There is no prior art teaches the fixture unit has a average thickness that is less than a height of the highest one of the one or more elements mounted on the PCB.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (571) 272-2296. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

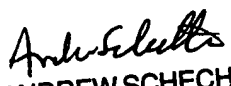
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HOAN C. NGUYEN  
Examiner  
Art Unit 2871

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ANDREW SCHECHTER  
PRIMARY EXAMINER